

EXISTING SECTION A-A

**FOUNDATIONS**

Mass filled strip footings to dims shown using 1:2:4 mix (20N/mm<sup>2</sup>) concrete Sulphate resisting cement where applicable. Foundations to be taken down into virgin ground to at least the depth of existing or Min 600mm below any tree roots encountered in the excavations whichever is the deeper but do not undermine any adjacent foundations without express permission. 100mm thick Claymaster is to be provided to the inside face of all external foundations & to one face of internal foundations that are deeper than 1.5m. If at all uncertain consult Building Control Inspector on site at the earliest opportunity. All foundations must be inspected & approved prior to placing of concrete.

**FOOTING WALLS**

All to be built in common fletton bricks or 7N/mm<sup>2</sup> dense concrete blocks in 1:3 cement sand mortar up to DPC level. Sulphate resisting cement only where necessary. All walls to be built on center of foundations unless otherwise stated. Cavities to be filled with lean mix concrete to 300 below lowest DPC level.

**GROUND FLOOR (Back Addition)**

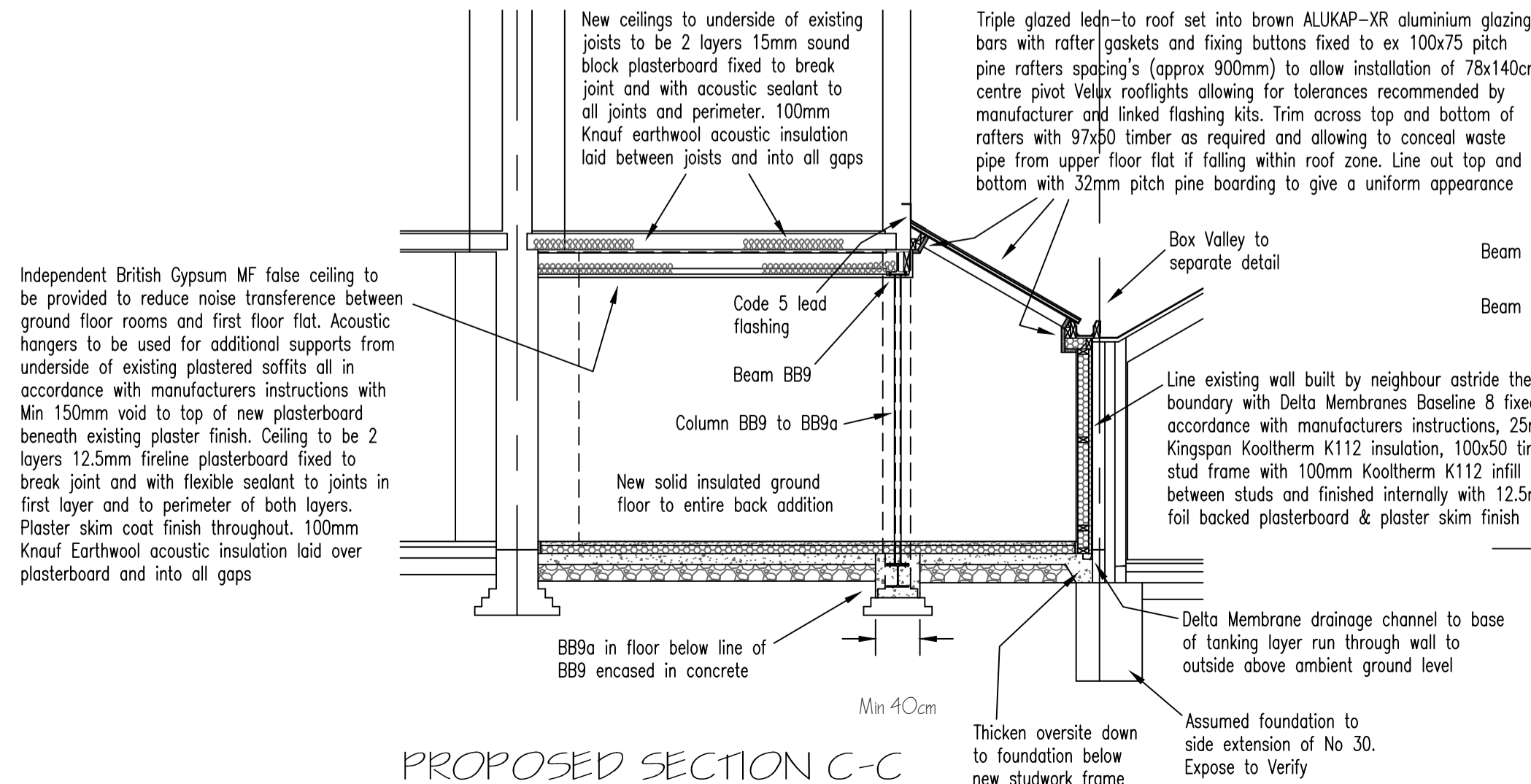
35mm liquid screed on 500 gauge polythene moisture control layer on 75mm Kingspan Kooltherm K103 Floor Board insulation or equal approved with 25mm strip around perimeter of rooms to isolate screed & prevent a cold bridge on 1200 gauge polythene DPM on 100mm thick 1:2:4 mix concrete oversite slab on 150mm layer well consolidated hardcore. Strip all top soil or other deleterious material from site of building. Build up hardcore in layers NE 150mm thick & overall Max 600mm thickness. Existing floors in back addition to be removed and levels reduced for new floor construction throughout.

**TANKING MEMBRANE**

Entire lower ground floor together with external & party walls where below adjacent ground levels to be tanked with Delta-MS 500 or Baseline 20 tanking membrane or equal approved installed by a registered installer giving a 30 year product guarantee to cover membrane and ancillary products and a minimum 12 year insurance backed installation guarantee. Delta aqueduct/channel drainage system to be provided to drain into sump with pump to drainage system at front of building. All to be carried out in strict accordance with manufacturers instructions.

**LOWER GROUND FLOOR (Main Building)**

35mm liquid screed on 500 gauge polythene moisture control layer on 75mm Kingspan Kooltherm K103 Floor Board insulation or equal approved with 25mm strip around perimeter of rooms to isolate screed & prevent a cold bridge on Delta MS 20/Baseline 20 waterproof tanking membrane with perimeter drainage channels or equal approved on 100mm thick 1:2:4 mix concrete oversite slab on 150mm layer well consolidated hardcore. Drainage to tanking as specified under Tanking Specification.



**LATERAL RESTRAINT**

Anchor roofs, ceilings and intermediate floors to external and internal load bearing walls as applicable @ Max 2.0m c/c. 30x5 galvanized steel straps notched over at least 3No joists, bent as required and extended down walls Min 600mm. Straps to be hooked over inner lead at floors or restraint hook joist hangers to be used. Applies to new work in all cases and existing only where specifically directed.

**THERMAL INSULATION TO EXISTING SOLID WALLS**

Existing solid brickwork walls to be insulated where external, party walls or non heated space on other side of wall. Line brickwork internally with Baseline 8 waterproofing membrane and fix with 25x50 tanalised timber battens vertically at Max 600c/c in accordance with manufacturers instructions. Battens to be packed and plumbed as required. If existing walls more than 25mm out of plumb consult design team prior to proceeding for a decision. Then fix 72.5mm Kingspan Kooltherm K18 insulated plasterboard to timber battens with skim coat finish internally. If reduction in floor space exceeds 5% then insulation thickness may be reduced proportionally to meet 5% loss of floor area.

**BOILERS, HEATING & HW CONTROLS**

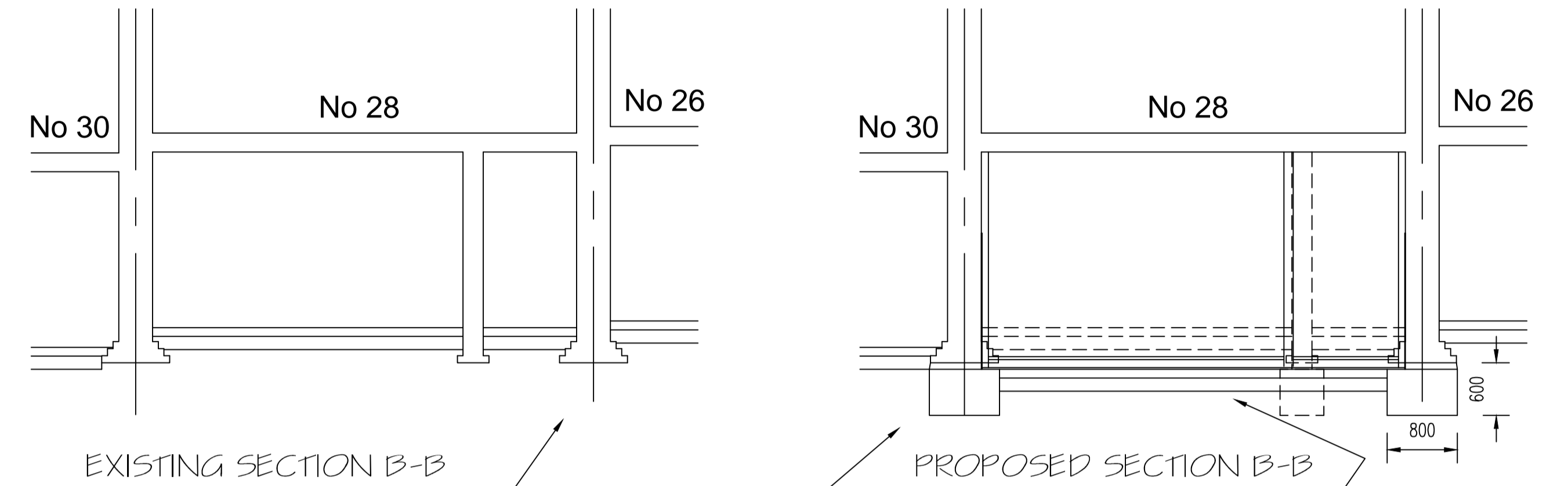
Boilers to be fueled by Mains natural gas and to have a 'SEDBUK' of at least 90% and be a condensing type with system controls that switch the boiler off if there is no demand for heating or hot water. Heating system to have zoned controls separate for living and sleeping areas. In larger properties no one zone should exceed 150sqm. Each zone for space heating and the hot water system to have separate temperature & time controls. Hot water storage to be a factory insulated vessel with a minimum 35mm thick coating of PU foam (Min 30kg/cum density) or greater if pressurized including other adjacent equipment & all pipework to be insulated including vent pipes & primary flow & return to a temperature range of -40°C to +70°C. All systems to be properly commissioned prior to handover and a report issued together with full operating instructions handed to client prior to occupation of the building. Boiler flues (fan assisted) to be sited Min 300mm from any openings into the building, 200mm below eaves and 150mm min from any drain or soil pipes.

**TIMBER**

All to be C16-C24 grade unless otherwise specified. Structural Engineers details to take precedence. Roof timbers, any ends to be built into walls or others in a vulnerable location to be treated with a preservative containing a fungicide. Roof timbers to be pressure impregnated with preservative. Spike all doubled joists etc with 100mm wires @ 600c/c askew from both sides Bolt multiple timbers as specified with M12 4.6 black bolts @ 450c/c staggered & with 63mm Ø tooth ring plate connectors and washers etc.

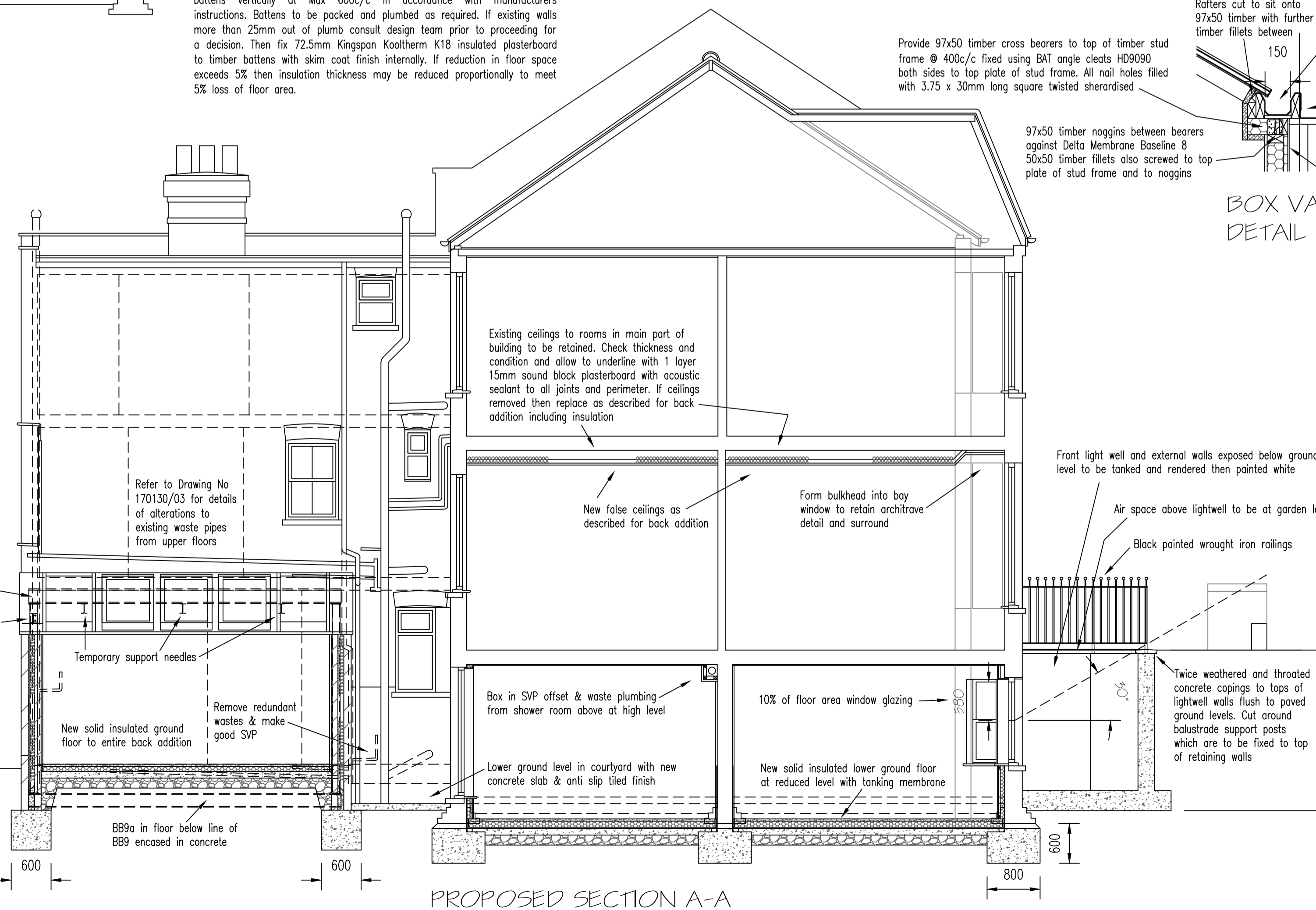
**STEELWORK**

All to be grade 43 to BS 4 Pt 1 & BS 4848 Pts 2&4 painted with 2 coats grey oxide primer after first removing any surface rust etc. Any joints to be bolted or welded to separate detail. 1:2:4 mix concrete or engineering brick padstones to bearings as specified. Structural Engineers details to take precedence. Encase steelwork in 2 layers 15mm plasterboard with staggered joints nailed to SW cradles. Plaster skim coat finish to any casing not concealed by other parts of the structure etc. Beams within floor or ceiling voids to have Min 1 layer of plasterboard in addition to ceiling plasterboard.

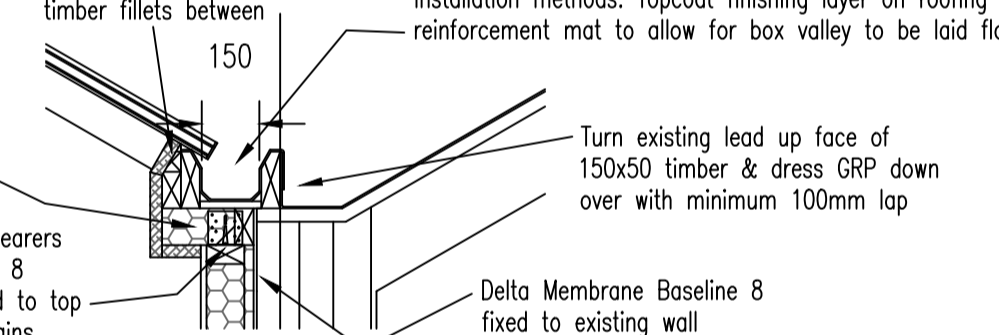


Existing foundation levels have been exposed to determine precise depth & width of existing foundations - currently brick spreader courses are shown as further investigation of any compacted gravel layer below brick footings are still required.

It is proposed to replace the existing floor to the basement rooms with new solid floors to achieve a ceiling height of around 2.3m. This will require nominal underpinning with excavations approximately 0.6m below the bottom of the existing brick spreader courses with a 75mm dry pack bed. Maximum reduced level required around 0.75m with a reduction in finished floor level of around 0.33m.



Existing lead dressed over wall to be rolled back to allow installation of new box valley on top of wall using 150x50 timbers with top corners chamfered, 19mm WBP ply base and 25x25 timber fillets all screwed together & finished with a GRP Fibreglass roofing system for which guarantees are generally available for 20, 25, 30 or 40 years depending on materials used and installation methods. Topcoat finishing layer on roofing resin on 600g/m<sup>2</sup> reinforcement mat to allow for box valley to be laid flat.



BOX VALLEY DETAIL 1-20

REV G - Depth of lightwell excavation & air space	16/10/2019
REV F - Construction drawing update	05/06/2018
REV E - Proposed Section C-C added	23/05/2018
REV D - Existing chimney to back addition added & revert to side extension only	23/03/2018
REV C - Rear extension combined with side infill	12/12/2017
REV B - Rear extension changed to side infill	15/11/2017
REV A - Underpinning details incorporated following trial hole exploratory excavations	04/05/2017
REVISIONS	DATE

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TITLE	
EXISTING & PROPOSED SECTIONS	
ADDRESS	
28 KYLEMORE ROAD LONDON NW6 2PT	
CLIENT	
COBSTAR Ltd	
SCALE	DATE
A1 1:50 & 1:100 @ A3	JAN 2017
DRAWING No.	REV.
170130/04	G